William T. STEARN*: New species of *Microtoena* (Labiatae) from Nepal, Bhutan, Assam, and Thailand

W.T. スターン*: ネパール, ブータン, アッサム, タイ産 *Microtoena* 属の新種

(Plates I-V)

Sir David Prain (1857-1944), Director of the Royal Botanic Gardens, Kew from 1905 to 1922, worked in India from 1884 to 1905, at first as a young medical officer, then as a botanist, and made numerous contributions of outstanding and lasting value to the study of the Indo-Malayan flora. In 1887, when he was investigating plants grown commercially in India for production of the scented patchouli oil used in perfumery, there came to his attention a member of the Labiatae which J.D. Hooker had described in the Flora of British India **4**: 624 (1885) as a doubtful species of *Plectranthus* under the name *P. patchouli* C.B. Clarke. According to Clarke this plant 'cultivated in Khasia' was 'said to be the true Patchouli; it has the true Patchouli scent'. The chief patchouli species of commerce are, however, *Pogostemon cablin* (Blanco) Bentham (*P. suavis* Tenore, *P. patchouly* Pelletier) and *P. heyneanus* Bentham, a matter discussed by Prain in Kew Bull **1908**: 78-82 (1908). Clarke collected his plant in Assam. Prain decided that this species, although referred earlier by C.B. Clarke to *Plectranthus* and by Oliver to *Cymaria*, could not justifiably be placed in either genus but belonged to an unnamed genus which, in his opinion, stood nearest to *Craniotome* and he named it *Microtoena*. He did not share the Rev. R.T. Lowe's dislike of anagrammatic names expressed so vehemently in the Flora of Madeira 490 (1868): 'I must here invoke all botanists to unite in utterly repudiating and putting down such scandalously childish, bald and witless trickery with names as the anagrammatic formations by Cassini of *Logfia*, *Gifola*, *Ifloga*, etc. from *Filago*..... No priority of date can plainly justify the adoption or perpetuation of such unseemly barbarisms....such base name-coinage'. On the contrary, Prain happily transposed *Craniotome* into

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meaningless *Microtoena* as a name for his new genus of Labiatae; he likewise coined *Acrymia* from *Cymaria, Milula* from *Allium* and *Nosema* from *Mesona* (cf. Stearn: Botanical Latin, 2nd ed. 296, 1973). Although well aware of the existence of the earlier name *Plectranthus patchouli* C.B. Clarke (1885), Prain rejected the epithet *patchouli* and named the species *Microtoena cymosa* Prain when founding the genus *Microtoena* upon it in Hooker's Icones Plantarum **29**: t. 1872 (1889). This nomenclatural procedure was in accordance with the now abandoned 'Kew Rule' of priority of epithets being limited to their use only under a given generic name, which permitted an epithet to be changed when a species was transferred for the first time from one genus to another. Such changes are now illegitimate. Clarke's plant from Assam has subsequently been regarded as conspecific with *Gomphostemma insuave* Hance (1884) from Kwangtung, China, which its collector B. C. Henry described as having a 'very strong and unpleasant' odour, and been named *Microtoena insuavis* (Hance) Briquet (1896). Shwe-jye Hsuan in 1965 and 1977, however, took the view that Clarke's Assam plant and Hance's Chinese plant represent different species and used the name *M. patchouli* (C.B. Clarke) C.Y. Wu & Hsuan for the former and *M. insuavis* for the latter. Comparison of their respective type specimens has confirmed their separation since that of *insuavis* (B.C. Henry 22237) has short upwards appressed hairs on the upper part of the stem whereas that of *patchouli* (C.B. Clarke from Khasia) has longer outwards spreading hairs.

In a subsequent paper, 'Le genre *Microtoena*', in Bull. Soc. Bot. France **42**: 417–427 (1895), Prain distinguished six species, namely *M. cymosa* (*M. insuavis*), *M. griffithii* Prain from Assam, and *M. delavayi* Prain, *M. urticifolia* Hemsley, *M. moupinensis* (Franchet) Franchet and *M. robusta* Hemsley from China. Prain did not accept his *M. cymosa* as a native of India but as 'a Chinese species which seems to have spread southward, as a cultivated plant, to Manipur and the Khasia Hills in Assam and to the Shan States of Burma and Siam'. An account by Shwe-jye Hsuan, 'Revisio generis Microtoena Labiatarum Sinensium' in Acta Phytotaxonomica Sinica **10**: 41–56, pl. 11–15 (1965) raised the generic total to 20 species with 5 varieties. None of these occurred westward of the Mishmi mountains, i.e. 95°20 to 96°40 E, in eastern Assam where William Griffith collected *M. griffithii* in 1836. Collections made by Hara and others in 1963, Williams and Stainton in 1967 and Dobremez in 1972 revealed the

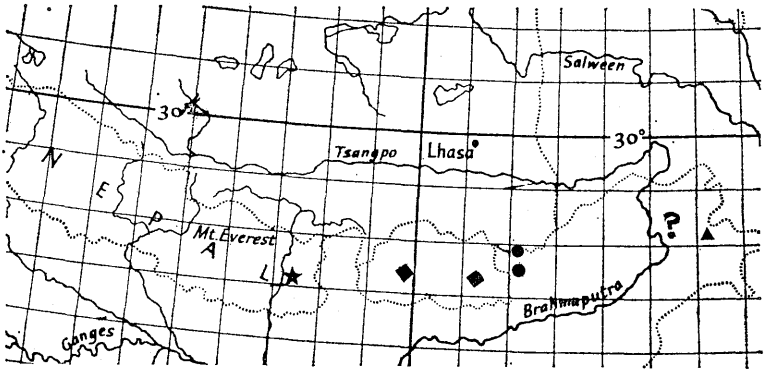

Fig. 1. Distribution of *Microtoena* species in Eastern Himalayan region. ★ *M. nepalensis*; ◆ *M. bhutanica*; ● *M. wardii*; ? *M. griffithii*; ▲ *M. patchouli*.

extension of the genus to eastern Nepal, i.e. to 87°25 E. Since the Nepal species did not match any described species, it has been named *M. nepalensis*. Specimens of other species collected in Assam and Bhutan partially link its range with that of *M. griffithii*, which in turn connects them with the species of Western China. Comparison of this Nepal material with specimens from Bhutan, Assam, Upper Burma, north Thailand and north Vietnam in the British Museum and Kew herbaria has surprisingly brought to notice distinguishable, geographically well separated through very closely allied taxa that do not satisfactorily match species described from China: these are described below as new species. Plants of the genus are not inconspicuous but have been little collected; thus, even when allowance is made for inadequate collecting, each species (apart from *M. insuavis*) appears to be of comparatively limited range. *M. insuavis* probably owes its wide distribution to human agency.

Key to species west of China

1. Leaves almost glabrous, the blade cuneate at base; inflorescence dense, 5-8 cm long; Assam .... *M. griffithii*
1. Leaves profusely hairy, the blade subcordate, truncate or cuneate at base; inflorescence various, usually loose 2
2. Corolla ca 2.0-2.5 cm long 3
2. Corolla ca 0.5-1.8 cm long 4

3. Calyx at anthesis ca 6 mm long, in fruit ca 11 mm long with upper tooth ca 5 mm long; corolla yellow; Nepal .... *M. nepalensis*
3. Calyx at anthesis 7–10 mm long, in fruit to 16 mm long with upper tooth 6–8 mm long; corolla rose; Bhutan .... *M. bhutanica*
4. Leaf-blade broadly or narrowly cuneate at base; upper part of stem with numerous appressed hairs 0.3–0.5 mm long 5
4. Leaf-blade almost truncate to subcordate at base; upper part of stem with erect hairs 0.4–3.5 mm long and numerous glandular hairs 6
5. Leaf-blade narrowly ovate; inflorescence loose, paniculate, to 15 cm long, calyx with minute glandular hairs; corolla ca 12 mm long; Vietnam .. *M. insuavis*
5. Leaf-blade broadly ovate; inflorescence compact, almost glomerate, to 4 cm long; calyx with curved non-glandular hairs and sessile glands; corolla 6–8 mm long, Thailand .... *M. siamica*
6. Calyx at anthesis 5–8 mm long with upper tooth 3–4 mm long; Assam .... *M. wardii*
6. Calyx at anthesis 2–3 mm long with upper tooth 1–2 mm long; Burma, Assam (cultivated).. *M. patchouli*

Microtoena bhutanica Stearn, sp. nova (Pl. I)

Herba erecta plus quam 30 cm alta. Caulis obtuse quadrangulatus, fere goniotrichus, pilis erectis ad 1.3 mm longis, pilis glanduliferis ad 0.7 mm longis et pilis numerosioribus partim glanduliferis ad 0.2 mm longis intermixtis pilosus. Folia longe petiolata; lamina ovata vel late ovata, apice acuminata, margine crenata dentibus plerumque latioribus quam longioribus, basi fere truncata, ca 2–9 cm longa, 1.5–7 cm lata, tenuis, supra pilis profusis fere appressis inter venas 0.4–1.2 mm longis sed secus venas 0.1–0.5 mm longis, infra pilis profusis fere appressis ca 0.3–0.8 mm longis et pilis erectis minutis plerumque glanduliferis inter venas sed secus venas primarias pilis ascendentibus vel fere appressis ad 1 mm longis obsita; petiolus foliorum majorum ad 6 cm longus, foliorum minorum ad 1 cm diminutus, pilis erectis sparsis ad 1.5 mm longis et pilis glanduliferis numerosis ad 0.2 mm longis pilosus. Inflorescentiae axillares et terminales, elongatae, laxae, pauciflorae, ad 5 cm longae; pedunculus glanduloso-pilosus ut in petiolo, 2–3 cm longus; pedicelli ad 7 mm longi; bracteae lineares, parvae. Calyx turbinatus, sub anthesi ca 7–10 mm longus, dente superiore 4.5–6 mm longo, dentibus inferioribus 4 fere aequalibus ca 2–2.5 mm longis, omnibus anguste triangularibus, apicibus rectis vel parum recurvatis, extus pube denso

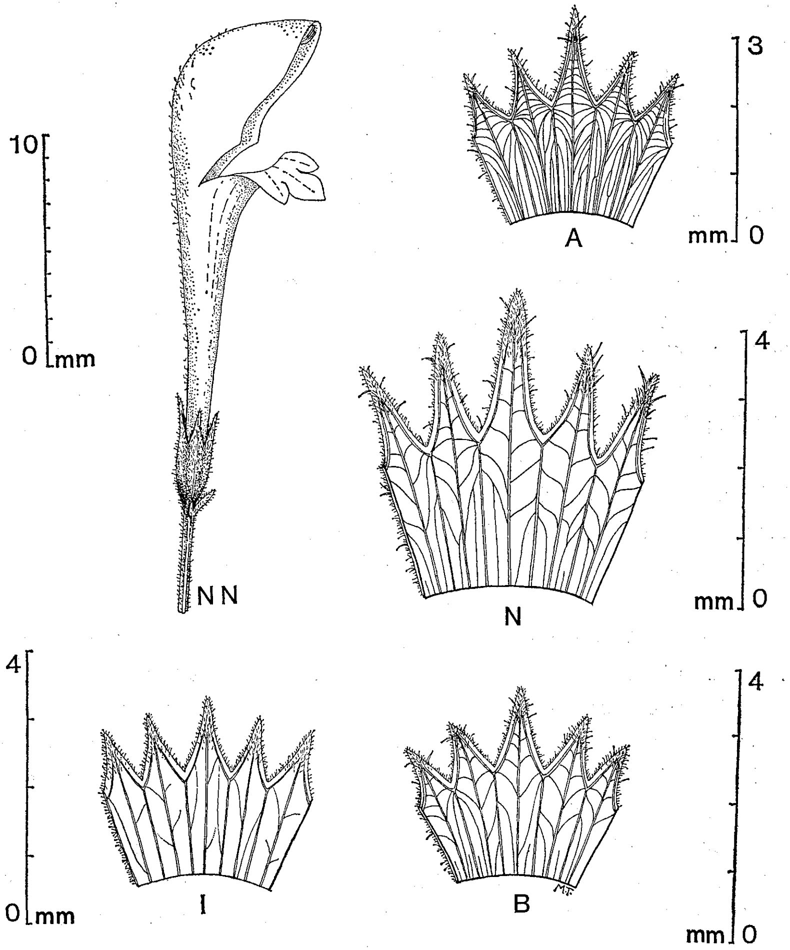

Fig. 2. Calyx of *Microtoena wardii* (A; Kingdon-Ward 14235); *M. nepalensis* (N; Williams & Stainton 8384); *M. patchouli* (B; Kingdon-Ward 21695); *M. insuavis* (I; Henry 22237). Flower of *M. nepalensis* (NN; Williams & Stainton 8384). Drawing by Margaret Tebbs.

pilis minutis glanduliferis crebris obsitus, fructifer auctus ad 16 mm longus dente superiore ad 6–8 mm longo, inferioribus ca 4–5 mm longis. Corolla rosea, basi alba, ca 2.2–2.5 cm longa, minutissime pubescens; tubus gracilis, sursum dilatatus, ca 1.7 cm longus; labium superum galeatum, ca 8 mm longum, inferum

trilobatum, ca 8 mm longum. Staminum filamenta glabra; antherae sub galea reconditae, ca 1.5 mm longae.

Bhutan: Hinglai La (27°26 N, 89°45 E), 8000 feet; among dense vegetation on steep bank; corolla pink, white at base, 24. VIII 1949, Ludlow, Sherriff & Hicks 19640 (BM holotype).

Microtoena griffithii Prain in Journ. Asiatic Soc. Bengal **59**: 310 (1890), Bull. Soc. Bot. France **42**: 424 (1895). (Fig. 3)

'2. MICROTŒNA GRIFFITHII *Prain*; glabrescent, leaves widely ovate-acute, base cuneate margin duplicate-crenate, cymes rather dense, *calyx* teeth deltoid acuminate, *galea* throat entire half as long as tube, lateral lobes of lip rounded half exceeding central ovate, *nutlets* small.

ASSAM:—"Eastern Bengal" (probably Mishmi hills), *Griffith*, n. 4059 Kew distrib.; Dibroo Mukh, *Masters*, 1072.

Stem 40-100 cm., lower branches 15-20 cm., petioles 4-5 cm. long, laminæ 7-9 cm. long 4-7 cm. wide, glabrons thinly membranous, cymes thyrsoid, *calyx* 6 mm. (tube 4 mm.), *corolla* 16 mm. (tube slightly infundibuliform above 11 mm., galea 5 mm.), pollen grains minute spherical rugulose, *nutlets* 3 mm.' (Prain, 1890)

'Elata erecta ramosa glabriuscula, foliis petiolatis late ovatis acuminatis basi cuneatis margine duplicato-crenatis utrinque glabrescentibus; cymis dense thyrsoideis; calycis parce hirsuti dentibus lanceolatis postico ceteros vix excedente; corollæ luteæ tubo calycem duplo superante, galea cymbiforme fauce vix auriculata labio 3-fido lobo medio elliptico lateralibus rotundatis dimidio minore, staminibus fere æquilongis.

Rhizoma sublignosum incrassatum, caulis subteres 40-100 cm. altus; ramis inferioribus 15-20 cm. longis; foliorum petiolis 4-5 cm. longis, laminis 7-9 cm. longis, his 4-7 cm. latis; pedunculis 5-8 mm. tantum longis, thyrsis terminalibus 5-8 cm. longis; calyce 5 mm. longo, fructigero aucto 6 mm. longo; corollæ tubo 11 mm. longo, galea 5 mm. longa labium æquante; nuculis 3 mm. longis.' (Prain, 1895)

This little-known but very distinct species seems not to have been collected again since its description by Prain, whose two accounts are reprinted above.

Microtoena insuavis (Hance) Briquet in Engler & Prantl, Nat. Pflanzenfam. IV 3A: 269 (1895). (Fig. 2 I; Pl. II)

Gomphostemma insuave Hance in J. Bot. (London) **22**: 331 (1884).

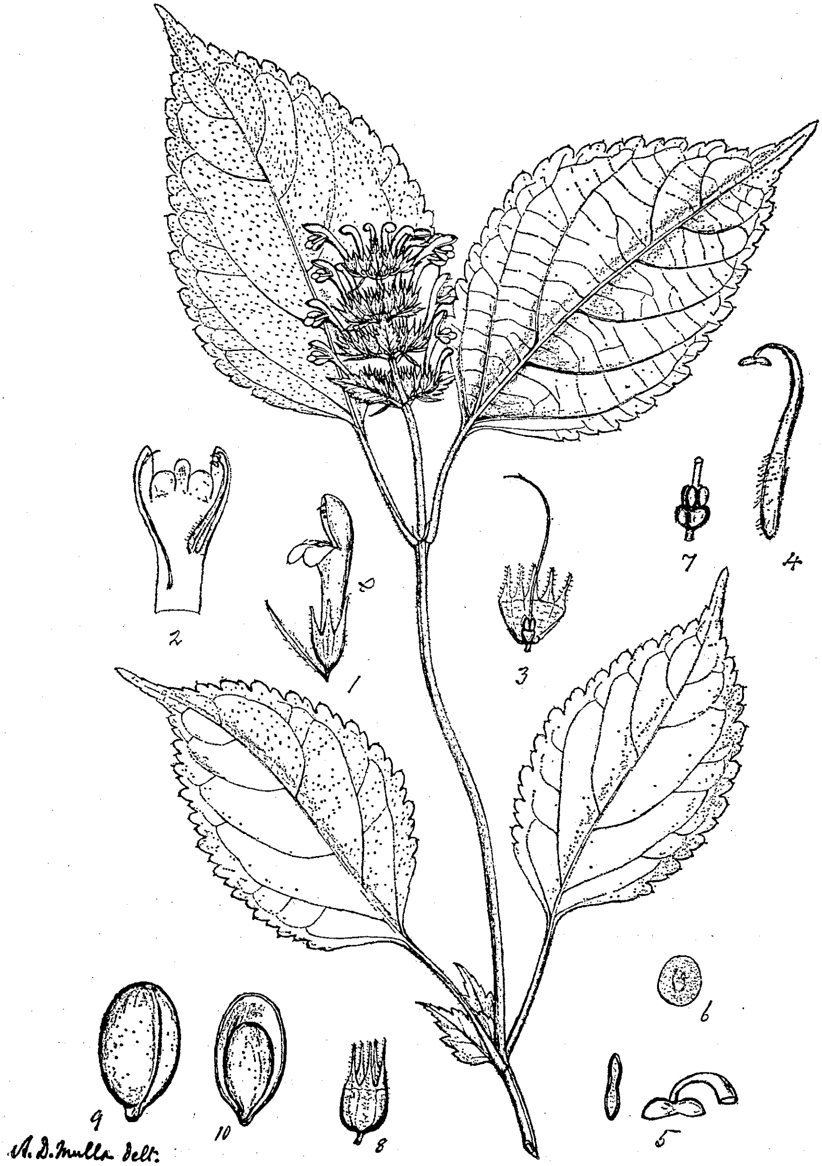

Fig. 3. *Microtoena griffithii* (unpublished drawing by A. D. Mulla made for D. Prain).

Herba erecta, plus quam 40 cm alta. Caulis obtuse quadrangulatus, pilis minutis curvatis sursum appressis plerumque ca 0.3 mm longis sed aliis paucis intermixtis ca. 0.5 mm longis dense vestitus. Folia longe petiolata; lamina late ovata, apice acuta, margine crenata dentibus latioribus quam longioribus, basi breve cuneata, ca 2 cm (in inflorescentia)–6 cm longa, 0.6–5 cm lata, supra pilis minutis sparsis appressis ca 0.5–0.7 mm longis inter venas et secus venas pilis minutis appressis 0.2–0.5 cm longis, infra glandulis aureis profusis inter venas sed secus venas pilis minutis densis curvatis fere appressis 0.3–0.5 mm longis obsita; petiolus foliorum majorum ad 3 cm longus, foliorum minorum (seu bractearum) ad 2 mm diminutus. Inflorescentiae axillares et terminales, elongatae laxae angustae, ramis ascendentibus ad 7–8 cm longis paniculam terminalem ad 15 cm longam 4.5 cm latam formantibus; pedunculi pilis curvatis densis (ut in caule) ad 4 cm longi; rhachis et pedicelli pilis minutis glanduliferis et pilis ca 0.3 mm longis dense vestiti, pedicellis 1–3 mm longis. Calyx turbinatus sub anthesi 2.5 mm longus, dente superiore ca 1.2 mm longo, dentibus inferioribus fere aequalibus ca 0.8–1.0 mm longis, omnibus anguste triangularibus, apicibus rectis, extus pilis minutis glanduliferis et pilis eglanduliferis patentibus ca 0.2 mm longis, fructifer auctus ad 4.5 mm longus, dente superiore ad 2.5 mm longo, inferioribus 2 mm longis. Corolla ca 1.1 cm longa, sparse pubescens; tubus gracilis, gradatim expansus ca 7 mm longus; labium superum galeatum, ca 4 mm longum, inferum trilobatum 4 mm longum lobo mediano anguste oblongo acuto 2 mm longo. Staminum filamenta glabra; antherae sub galea reconditae ca 0.6 mm longae. Nuculae laeves, ca 1.2 mm longae, 0.9 mm latae.

China; prope Shui-kwan, ad fl. North River, prov. Canton, XII. 1883, Rev. B. C. Henry, Herb. Hance 22237 (BM holotype).

In view of the frequent misapplication of the name *Microtoena insuavis*, a detailed description based solely on the type-specimen is given above.

Microtoena nepalensis Stearn in Hara & others, Enum. Flowering Pl. Nepal **3**: 158 (June 1982), descriptio abbreviata nunc ampliata. (Fig. 2 N, NN; Pl. III)

Herba erecta, ca 60 cm alta. Caulis obtuse quadrangulatus, pilis erectis ca 1–2 mm longis et pilis minutis vix 0.2 mm longis intermixtis partim glanduliferis pilosus. Folia longe petiolata; lamina plerumque ovata, apice acuminata, margine crenata dentibus latioribus quam longioribus, basi subcordata vel fere truncata, ca 1.5–9 cm longa, 1.5–5 cm lata, tenuis, supra pilis profusis fere appressis ca 0.5–1.2 mm longis, infra pilis profusis fere appressis inter venas ca

0.4–0.7 mm longis et secus venas ca 0.6–1.2 mm longis obsita; petiolus foliorum majorum ad 7 cm longus, foliorum minorum ad 5 mm diminutus, pilis ad 1.4 mm longis partim glanduliferis pilosus. Inflorescentiae axillares et terminales, elongatae, laxae, 4–6 cm longae; pedunculus glanduloso-pilosus, 2–3.5 cm longus; pedicelli vix 1 mm longi; bracteae minutae. Calyx turbinatus, sub anthesi ca 6 mm longus, dente superiore ca 3 mm longo, dentibus inferioribus 4 inter se aequalibus ca 2.5 mm longis, omnibus anguste triangularibus, apicibus leviter curvatis ad recurvatis, extus pube denso e pilis minutis glanduliferis crebris et pilis longioribus ad 0.7 mm longis sparsis composito obsitus, fructifer auctus ad 11 mm longus, dente superiore fere 5 mm longo, inferioribus fere 4 mm longis. Corolla flava, ca 2.5 cm longa, minutissime pubescens; tubus gracilis, sursum dilatatus, ca 1.4 cm longus; labium superum galeatum, ca 1 cm longum, inferum trilobatum lobo medio rotundato ca 4 mm lato, lobis lateralibus medio multo brevioribus ca 2.5 mm latis. Staminum filamenta glabra; antherae sub galea reconditae ca 2 mm longae. Nuculae obovoideae, brunneae, laeves, fere maturae ca 1.8 mm longae.

East Nepal: Tinjure Danda (27°10 N, 87°29 E), 2280 m, in wet forest, IX. 1967, Williams & Stainton 8384 (BM holotype; K). Sinduwa, Dhankuta district, 2110 m, X. 1963, Hara, Kanai, Kurosawa & Murata 6306496 (BM, K). Chittre, 27°06 N 87°25 E, 2200 m, forêt de *Quercus lamellosa*; fleurs jaune pâle, 16. VIII. 1972, Dobremez 1482 (BM).

This species has been listed as *M. insuavis* by Murata in Hara, Flora of Eastern Himalaya 1: 279 (1966), in Acta Phytotaxonomica et Geobotanica **24**: 84 (1969) and Flora of Eastern Himalaya **3**: 94 (1975).

Microtoena patchouli (C. B. Clarke) C. Y. Wu & Hsuan in Acta Phytotaxon. Sinica **10**: 44 (1965). (Figs. 2 B & 4)

Plectranthus patchouli C. B. Clarke ex Hooker f., Fl. Brit. India **4**: 624 (1885).

Microtoena cymosa Prain in Hooker's Icones Pl. **29**: t. 1872 (1889), nomen illegit.

J. D. Hooker when he published the following description of this species as a doubtful member of the genus *Plectranthus* was unaware of its close affinity to the Chinese species earlier described by Hance as *Gomphostemma insuave*, with which later botanists have united it:

'P. PATCHOULI *Clarke mss.*; tall, erect, branched, hirsutely tomentose,

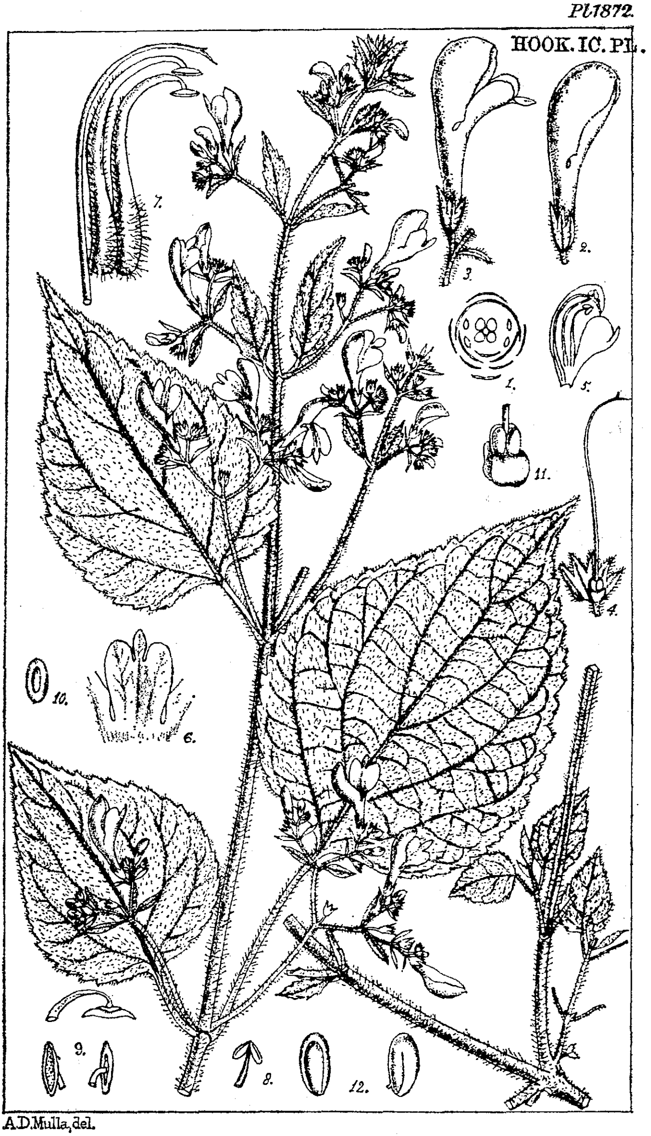

Fig. 4. *Microtoena patchouli* (drawing by A. D. Mulla in Hooker's Icones t. 1872 as *M. cymosa*).

leaves petioled ovate-cordate crenate-toothed, cymes branched, flowers subsecundly subsessile on the branchlets of a loose panicle, calyx-teeth subequal, corolla-limb subclavate with a large incurved cymbiform obtuse lower lip and shorter narrow upper lip.

ASSAM; *Jenkins* (Herb. Calcutt.). KHASIA Mts.; Johra, alt. 4000 ft., cult., *Clarke*.

Stem stout, branched. *Leaves* 2–3 in., hairy on both surfaces. *Cymes* panicled, irregularly branched; bracts small, leafy; pedicels 1/10 in. or 0. *Calyx* hardly 2-lipped, teeth acute. *Corolla* 1 $^1/_2$ in., tube slender, upper lip much shorter and narrower than the saccate obtuse lower, which is much larger than the tube.—"This, I am told, is the true Patchouli plant, and has the true scent, which *Pogostemon Patchouli* has not." *C. B. Clarke*. I have seen no fruit, and the inflorescence is very peculiar; it may not be a *Plectranthus*.'

C. B. Clarke's material was cultivated. It has spreading hairs on the upper part of the stem, as illustrated by Prain in Hooker's Icones t. 1872, whereas the type of *Gomphostemma insuave* has upwards appressed hairs on the upper part of the stem. I have therefore followed Hsuan in maintaining them as distinct. Material collected by Kingdon-Ward (No. 21695; BM) appears to represent truly wild *M. patchouli*. His field note reads: 'Burma, S. E. of Suprabum (97°36 E, 26°38 N), 2000 feet; open places along the forest edge; a softly hairy plant, 2–6 feet tall; flowers in large terminal and axillary panicles; lower lip of corolla bright yellow, upper red-brown, forming a striking combination, 15. xii. 1953'.

Microtoena siamica Stearn, sp. nova. (Pl. IV)

Herba erecta. Caulis obtuse quadrangulatus, pilis minutis sursum appressis ca 0.4–0.5 mm longis dense vestitus. Folia longe petiolata; lamina late ovata, apice acuminata, margine crenata dentibus multo latioribus quam longioribus, basi cuneata in petiolum attenuata, ca 1.5 cm (in inflorescentia)-11 cm longa, 0.8 cm (in inflorescentia)-7 cm lata, tenuis, supra pilis minutis sparsis ca 0.6 mm longis inter venas sed secus venas pilis minutis minutissimisque crebris vestitus, infra glandulis pallide flavis profusis et pilis curvatis 0.3–0.5 mm longis inter venas sed secus venas pilis plerumque fere appressis 0.5 mm longis obsita; petiolus foliorum majorum ad 5 cm longus, foliorum minorum ad 3 mm diminutus, pilis minutis appressis. Inflorescentiae axillares et terminales, breves, floribus congestis fere glomeratis, 2 mm (superiores)-2.5 cm longae, ad 4 cm

longae; pedunculi pilis minutis (ut in caule) vestiti, ad 2.5 cm longi; rhachis pilis curvatis 0.3 mm longis et glandulis sessilibus, pedicellis subnullis. Calyx turbinatus, sub anthesi ca 2.5 mm longus, dente superiore 1-1.5 mm longo, dentibus inferioribus fere aequalibus ca 1 mm longis, omnibus anguste triangularibus apicibus rectis, fructifer ad 4.5 mm longus, dente superiore ca 2.5 mm longo, dentibus inferioribus ca 2 mm longis, extus pilis curvatis et glandulis aureis sessilibus vestitus. Corolla flava, ca 6-8 mm longa, minute pubescens; tubus gracilis, sursum gradatim dilatatus, ca 4 mm longus; labium superum galeatum ca 3.5 mm longum, inferum leviter trilobatum ca 4 mm longum, lobo mediano oblongo ca 0.6 mm longo. Staminum filamenta superne glabra, inferne pubescentia; antherae sub galea reconditae ca 0.5 mm longae. Nuculae laeves, ca 1.2 mm longae, 1 mm latae.

Thailand: Doi Chiengdao (Doi Luang Chiang Dao. 19°23 N, 98°54 E), Payap; ca 1500 m; evergreen forest; flowers yellow, 3. XI. 1922, A.F.G. Kerr 6538 (BM holotype).

Microtoena wardii Stearn, sp. nova (Fig. 2 A, Pl. V)

Herba erecta alta. Caulis obtuse quadrangulatus, pilis erectis vel leviter curvatis ad 3.5 mm longis et pilis numerosioribus plerumque glanduliferis ca 0.3 mm longis intermixtis pilosus. Folia longe petiolata; lamina ovata vel late ovata, apice acuminata, margine crenata dentibus latioribus quam longioribus, basi fere truncata, ca 3-11 cm longa, 2-8.5 cm lata, tenuis, supra pilis profusis fere appressis inter venas ca 0.7-2 mm longis sed secus venas ca 0.2-0.5 mm longis, infra pilis profusis fere appressis ca 0.3-0.8 mm longis et pilis erectis minutis glanduliferis inter venas sed secus venas primarias pilis appressis ad 2 mm longis obsita; petiolus foliorum majorum ad 8 cm longus, foliorum minorum ad 1 cm diminutus, pilis erectis ad 2.5 mm longis et pilis glanduliferis ca 0.2 mm longis pilosus. Inflorescentiae axillares et terminales, elongatae, laxae, 3-9 cm longae; pedunculus glanduloso-pilosus ut in petiolo, 1-6 cm longus; pedicelli 1-3 mm longi; bracteae lineares, parvae. Calyx turbinatus, sub anthesi 5-8 mm longus, dente superiore ca 3-4 mm longo, dentibus inferioribus fere aequalibus ca 2-2.5 mm longis, omnibus anguste triangularibus, apicibus rectis vel leviter curvatis, extus pube denso pilis minutis glanduliferis crebris et pilis longioribus ad 1 mm longis sparsis composito obsitus, fructifer auctus ad 11 mm longus, dente superiore ad 5 mm longo, inferioribus 3 mm longis. Corolla flava, ca 1.8 cm longa, minutissime glanduloso-pubescens; tubus gracilis, sursum dilatatus,

ca 9 mm longus; labium superum galeatum, ca 9 mm longum, inferum trilobatum. Staminum filamenta superne glabra, inferne sparse pubescentia; antherae sub galea reconditae ca 1.3 mm longae.

Assam: Driang Dzong (27°25 N, 92°17 E), 6000 feet; a tall glandular hairy very sticky herb of deep gullies and forest by streams; flowers yellow, 12. IX. 1938, Kingdon-Ward 14235 (BM holotype). Senge Dzong (Shan-chi), 8000 feet; a tall coarse herb growing in a dark forested gulley among undergrowth, 16. VIII. 1938, Kingdon-Ward 14098 (BM).

Since the only species of *Microtoena* hitherto known from Assam was named by Prain in memory of the intrepid botanical explorer of Assam and adjoining regions William Griffith (1810–1845), it seems fitting to name this second Assam species after the equally intrepid botanical explorer, collector and writer Frank Kingdon-Ward (1885–1958) who between 1911 and 1957 made 22 expeditions in north Burma, Assam, western China and southeast Tibet. A summary of his travels and a list of his publications will be found in his posthumous Pilgrimage for Plants, 11–18, 181–186 (1960); Ulrick Schweinfurth's Exploration in the Eastern Himalaya and the River Gorge Country of South-eastern Tibet (1975) provides a more complete and annotated bibliography with map.

Explanation of plates I - V

Pl. I. *Microtoena bhutanica* (Ludlow, Sherriff & Hicks 19640; holotype, BM).

Pl. II. *Microtoena insuavis* (B.C. Henry 22237; holotype of *Gomphostemma insuave*, BM).

Pl. III. *Microtoena nepalensis* (Williams & Stainton 8384; holotype, BM).

Pl. IV. *Microtoena siamica* (Kerr 6538; holotype, BM).

Pl. V. *Microtoena wardii* (Kingdon-Ward 14235; holotype, BM).

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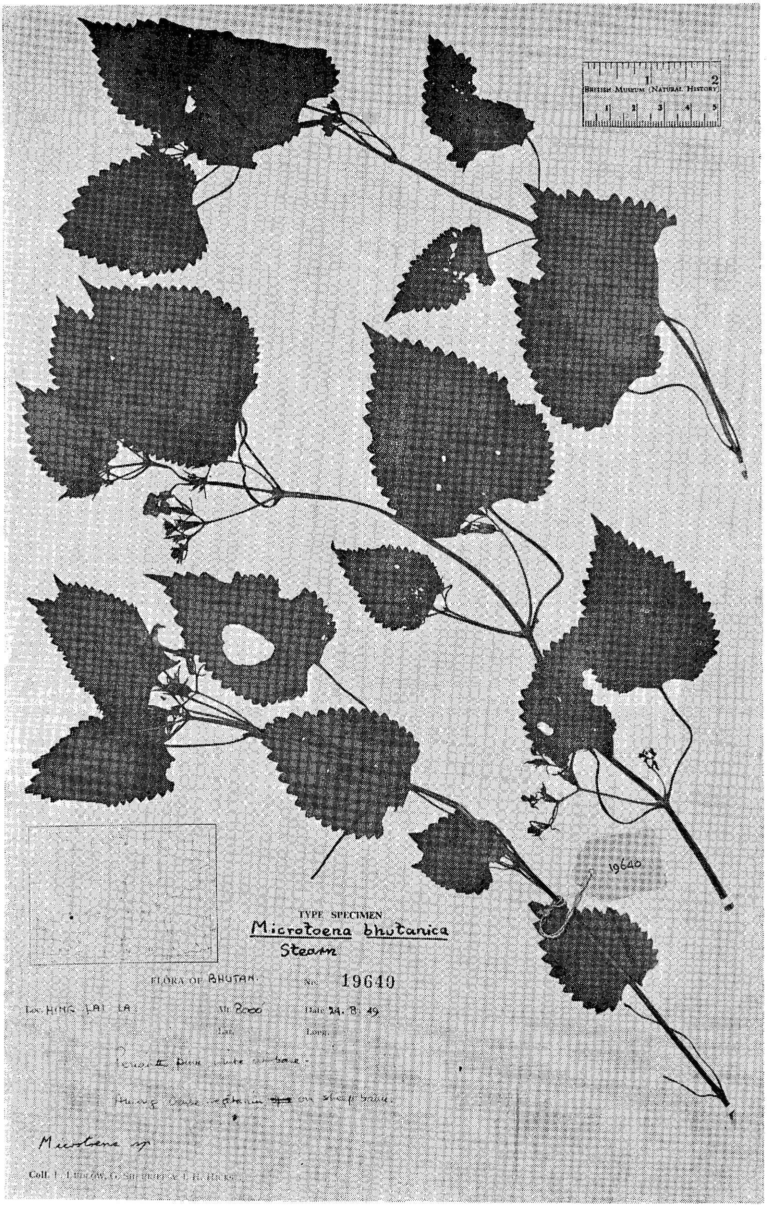
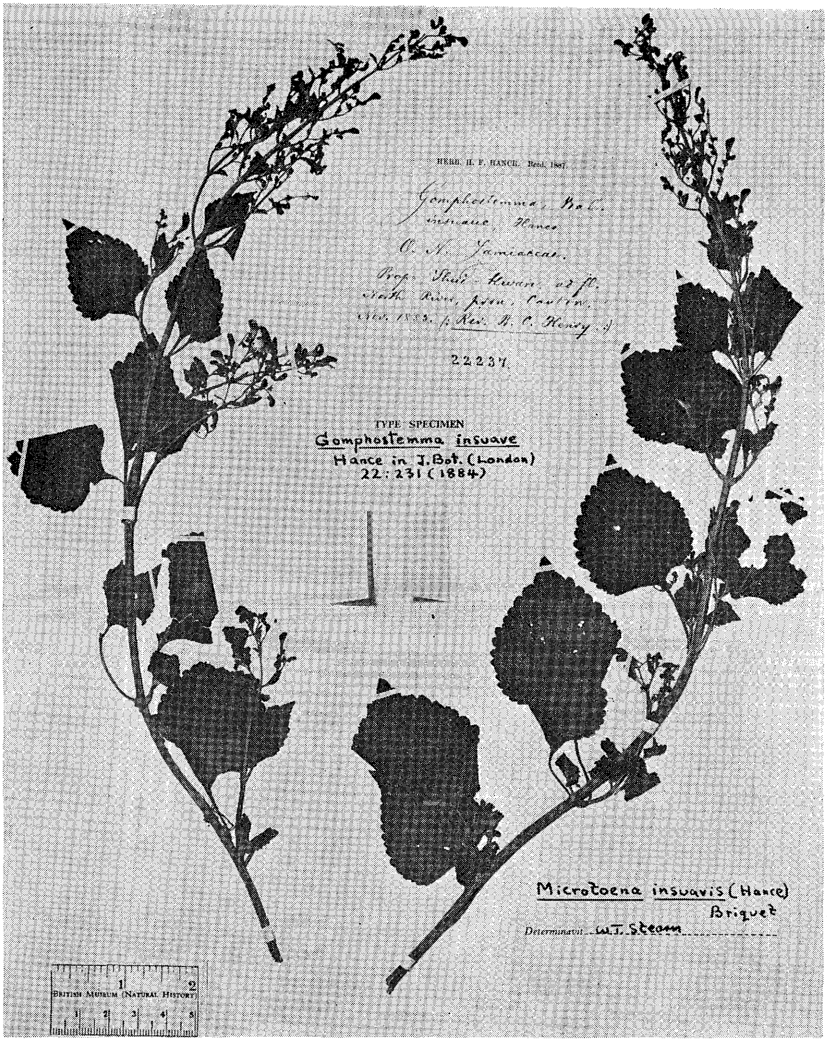
Microtoena 属（シソ科）はネパール以東，東南アジア，中国に分布しており，インドで古くから patchouli という香油の原料植物とも関連して学名が混乱してきた。キュー植物園および大英博物館にある中国より西方に産する本属の標本を再検討した結果，これらを7種に分類しその区別を明らかにした。その地域のものは中国産とは別種で，*Microtoena bhutanica*（ブータン産），*M. nepalensis*（ネパール産），*M. siamica*（タイ産），*M. wardii*（アッサム産）の4新種を記載した。*M. insuavis* を除き，種の分布は比較的局限されているようにみえる。なお *M. insuavis* はしばしば誤って用いられてきたので，基準標本に基づいた記載をのせた。



W. T. STEARN: New species of *Microtoena*


HERB. H. F. HANCE. Recd. 1887.
Gomphostemma, Bth.
insuave, Hance
O. N. Labiatae.
Prope Shui Hwan, ad fl. North River, prov. Canton, Oct. 1883. (Rev. B. C. Henry.)
22237.
TYPE SPECIMEN
Gomphostemma insuave
Hance in J. Bot. (London)
22: 231 (1884)
Microtoena insuavis (Hance)
Briquet
Determinavit W. T. Stearn
1
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BRITISH MUSEUM (NATURAL HISTORY)
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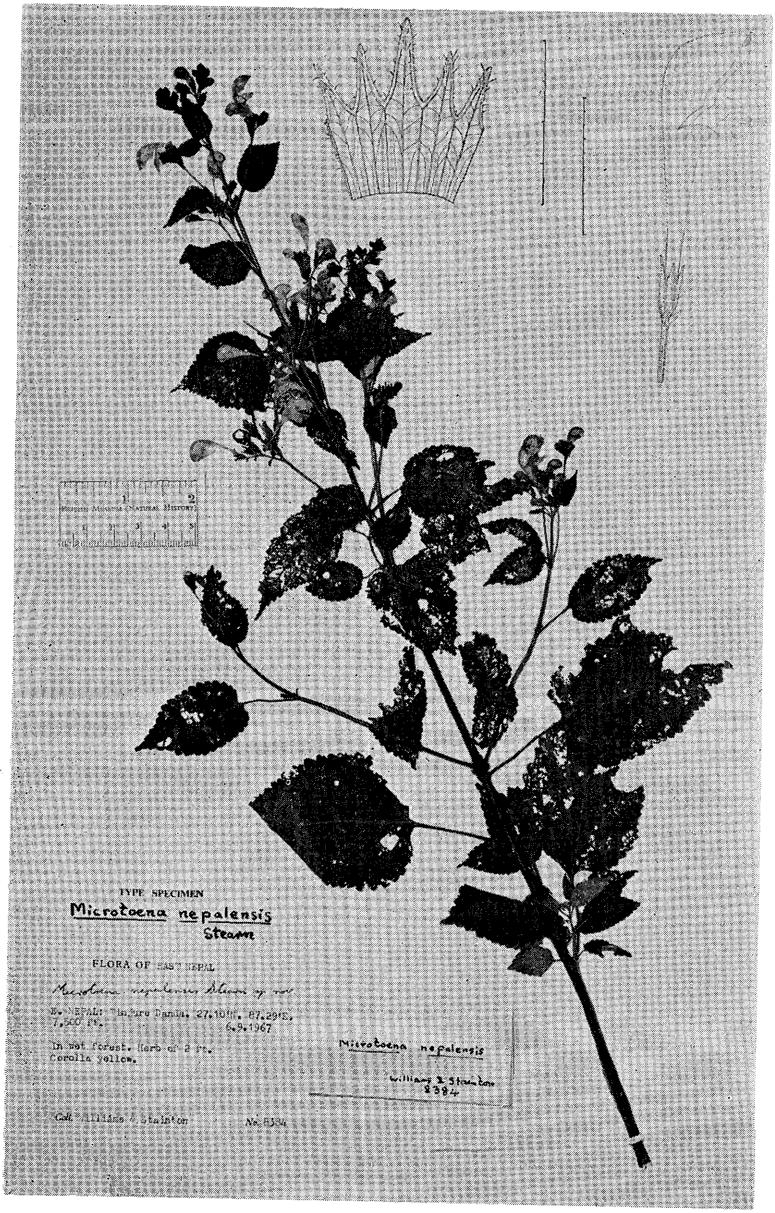
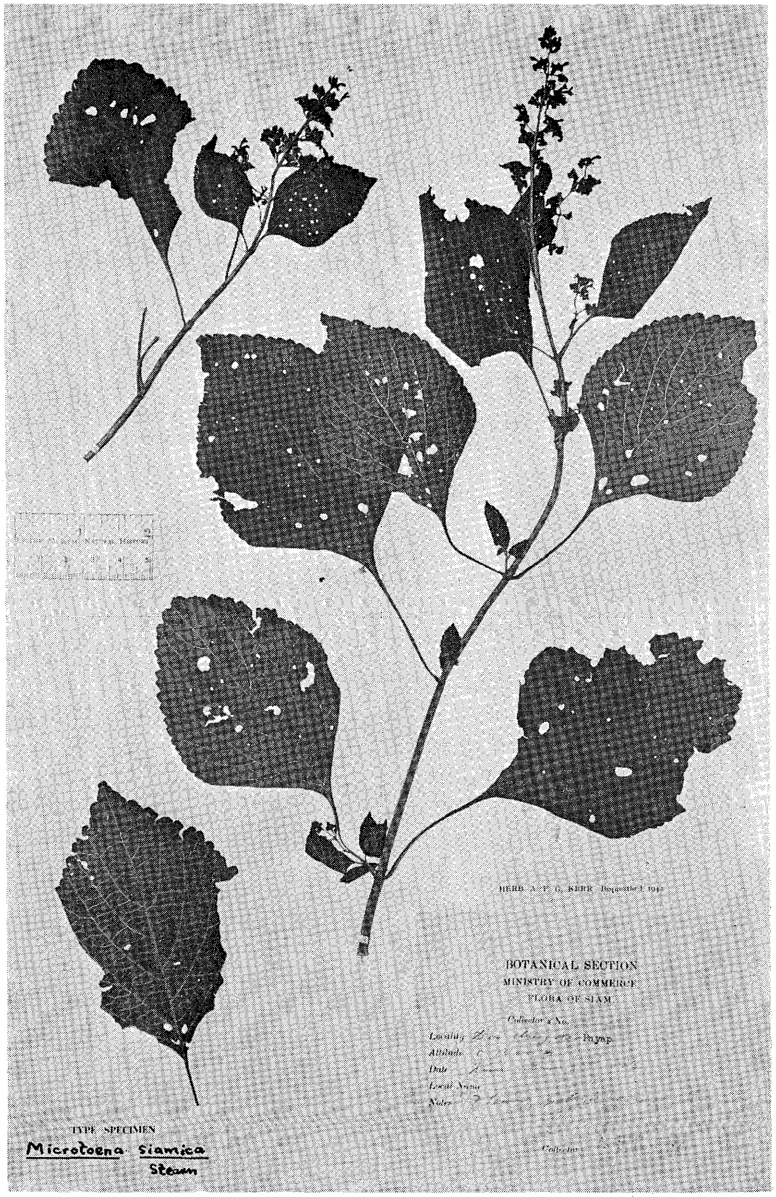
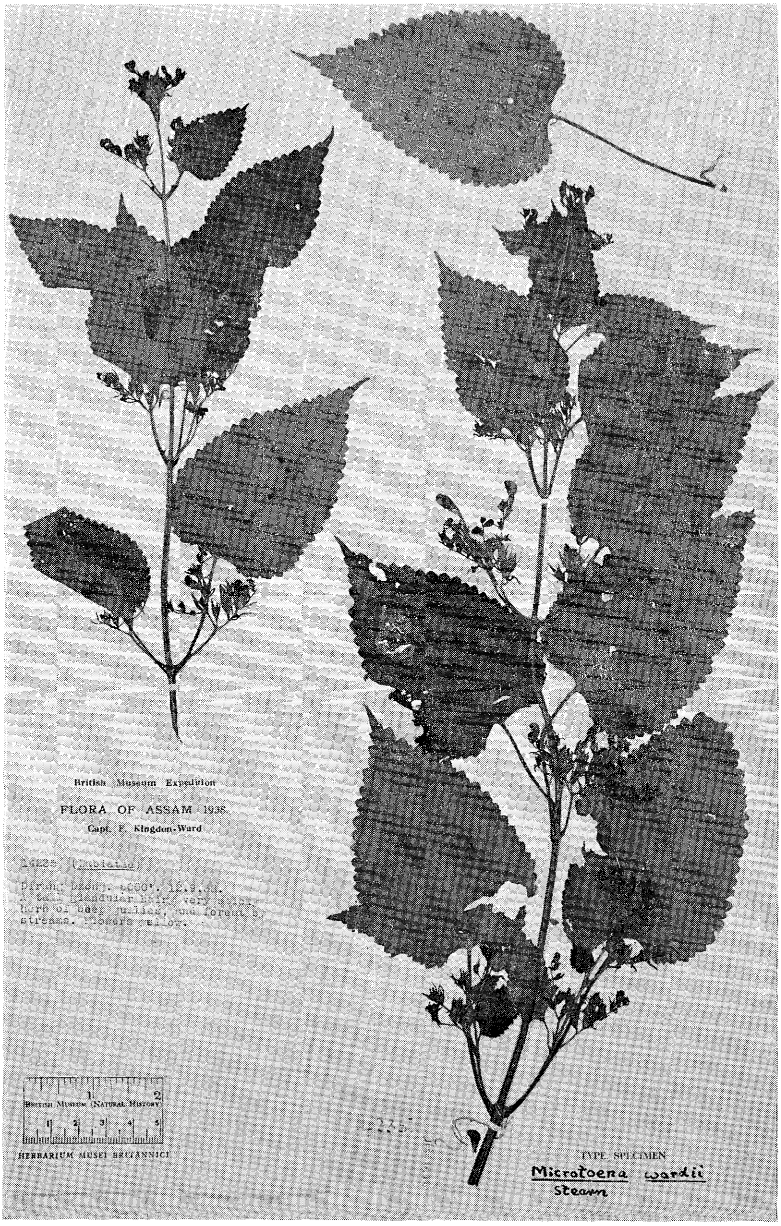
W. T. STEARN: New species of *Microtoena*



W. T. STEARN: New species of *Microtoena*



W. T. STEARN: New species of *Microtoena*


British Museum Expedition
FLORA OF ASSAM 1938.
Capt. F. Kingdon-Ward
BRITISH MUSEUM (NATURAL HISTORY)
HERBARIUM MUSEI BRITANNICI
TYPE SPECIMEN
Microtoena wardii Stearn

W. T. STEARN: New species of *Microtoena*